UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,677	04/18/2007	Ake Boose	HALBI 3.3-002	4999

530 7590 12/23/2008

LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK
600 SOUTH AVENUE WEST
WESTFIELD, NJ 07090

EXAMINER	
HINZE, LEO T	
ART UNIT	**PAPER NUMBER**
2854	
MAIL DATE	**DELIVERY MODE**
12/23/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,677	BOOSE ET AL.	
	Examiner	Art Unit	
	LEO T. HINZE	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29-33 and 35-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-33 and 35-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20081124*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 21 October 2008, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of prior art as identified below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 55 is rejected under 35 U.S.C. 102(b) as being anticipated by Holdregger, US 4,940,354 A (hereafter Holdregger).

Holdregger teaches a method for removably attaching a doctor blade clamping portion to a support having at least one end portion, said doctor blade clamping portion (1, Fig. 4) including a first slit including a first opening (2, Fig. 4) and a second slit including a second opening (see unlabeled slit holding one leg of support 18, Fig. 4), said first slit intended to accommodate said doctor blade (27, Fig. 4), said method comprising introducing said at least one end portion of said support into said second opening of said second slit and inserting resilient clamping means (3, Fig. 4) into said

second opening of said second slit for resiliently supporting said at least one end portion of said support within said clamping portion (see assembled apparatus, Fig. 4).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 29-33, 35-39, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Böose et al., US 5,671,673 A (hereinafter Böose) in view of Davis, US 6,237,487 B1 (hereinafter Davis) and Knop, US 6,911,085 B2 (hereinafter Knop).

a. Regarding claim 29:

Böose teaches a doctor blade mounting system for applying liquids to a rotatable cylinder in printing equipment comprising an elongated frame (13, Fig. 1) mounted

adjacent to said rotatable cylinder (2, Fig. 1), said elongated frame including a support and a clamping portion (19, Fig. 1) mounted with respect to said support, said clamping portion including an elongated slit (blades 9, 10, engaged in a "slit," Fig. 1), a doctor blade disposed within said elongated slit parallel to said rotatable cylinder for operative wiping engagement with said rotatable cylinder (9, 10, Fig. 1), and clamping means for fixing said doctor blade within said elongated slit, said clamping means being disposed with respect to said doctor blade to provide a damping action for said doctor blade (blades 9, 10, fixed in the slit, and appear to be mounted in such a way that their actions is damped, Fig. 1).

Bööse does not teach said slit including an opening; said clamping means comprising an elastomeric material disposed within said elongated slit and accessible for removal from said opening in said slit with said doctor blade disposed therein whereby said elastomeric material is resiliently disposed with respect to said doctor blade to provide a damping action for said doctor blade, and is removable from said opening to assist in subsequent removal of said doctor blade from said elongated slit.

Davis teaches a doctor blade mounting system for applying liquids comprising an elongated frame (10, Fig. 3), said elongated frame including a support and a clamping portion mounted with respect to said support, said clamping portion including an elongated slit including an opening (slit 21, open at one end, Fig. 3), a doctor blade disposed within said elongated slit for operative wiping engagement (squeegee 25, Fig. 3), and clamping means for fixing said doctor blade within said elongated slit (27, Fig. 3), said clamping means being disposed with respect to said doctor blade to provide a

damping action for said doctor blade (col. 3, l. 61 – col. 4, l. 4); said clamping means comprising a flexible material disposed within said elongated slit and accessible from said opening in said slit whereby said material is resiliently disposed (col. 3, l. 61 – col. 4, l. 4); and is accessible from said opening to assist in removing said doctor blade from said elongated slit (col. 3, l. 61 – col. 4, l. 4). Davis is silent as to the material of the rod 27, other than to say it is "flexible" (col. 3, l. 62).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bööse wherein said clamping means is resiliently disposed with respect to said doctor blade as taught by Davis, because such a combination would predictably provide a mechanism that can hold a doctor blade, and further because Davis teaches this arrangement simplifies assembly and removal of the doctor blade.

Knop teaches a flexible elastomeric member (4, Fig. 1) for firmly holding a doctor blade (3, Fig. 1) in a slit in a holder (13, Fig. 1). The material creates a seal that prevents penetration of liquid into the slit (col. 4, ll. 7-8).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bööse wherein the material of the doctor blade holding member was an elastomer, because Knop teaches that this provides a seal that prevents liquid from penetrating the doctor blade holding slot.

b. Regarding claim 30, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse, Davis, and Knop also teaches wherein said

clamping means is tightly received within said slit (Davis: clamping means 27 appears tightly received in recess 22, Fig. 3).

c. Regarding claim 31, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse, Davis, and Knop also teaches wherein said clamping means fixes said doctor blade by means of friction (Davis: col. 4, ll. 1-4).

d. Regarding claim 32, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse, Davis, and Knop also teaches wherein said clamping means supports at least one side of said doctor blade disposed within said slit (Davis: col. 4, ll. 1-4).

e. Regarding claim 33, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse, Davis, and Knop also teaches wherein said clamping means is resiliently disposed within said slit (Davis: “flexible”, col. 3, l. 62).

f. Regarding claim 35, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse, Davis, and Knop also teaches wherein said clamping means comprises at least one elastomeric member (Knop: col. 4, ll. 1-5).

g. Regarding claim 36, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 35 as discussed in the rejection of claim 35 above. The combination of Bööse, Davis, and Knop also teaches wherein at least a

portion of said clamping means is in the shape of a wedge strip comprising a shape intended to fit and lock within a cross-sectional profile of said slit (Davis: col. 4, l. 65 – col. 5, l. 6).

h. Regarding claim 37, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 35 as discussed in the rejection of claim 35 above. The combination of Bööse, Davis, and Knop also teaches wherein at least a portion of said clamping means supports an edge of said doctor blade disposed within said slit (Davis: edge of blade 25 in recess 22, Fig. 3).

i. Regarding claim 38, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 35 as discussed in the rejection of claim 35 above. The combination of Bööse, Davis, and Knop also teaches wherein said elastomeric member has a hardness of about 70 degrees Shore A (Knop: col. 4, ll. 1-5).

j. Regarding claim 39, the combination of Bööse, Davis, and Knop teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse, Davis, and Knop also teaches wherein said support and said clamping portion comprise separate parts (support and clamping portions are separate in Bööse, Fig. 1), and said support includes at least one end portion (Davis: support 17, has an “end” in which the blade 25 is clamped, Fig. 3), and wherein said clamping means resiliently clamps said clamping portion to said end portion of said support.

k. Regarding claim 50:

Bööse teaches a chambered doctor blade mounting system (Fig. 1) for applying liquids to a rotatable cylinder (2, Fig. 1) in printing equipment comprising an elongated frame (13, Fig. 1) mounted adjacent to said rotatable cylinder, said elongated frame comprising a support and a pair of clamping portions (19, 20, Fig. 1) , a pair of elongated doctor blades (9, 10, Fig. 1) mounted on said pair of clamping portions whereby said pair of elongated doctor blades are disposed parallel to said rotatable cylinder for operative wiping engagement with said rotatable cylinder (blades 9, 10, parallel to roller 2, Fig. 1), each of said pair of clamping portions including an elongated slit for receiving each of said pair of elongated doctor blades (blades held in a "slit" between two pieces of metal, Fig. 1), said pair of clamping portions and said support comprising separate parts (clamping portions appear to include two metal strips and several fasteners, Fig. 1), said support including a pair of end portions, and clamping means resiliently clamping said clamping portion to said pair of end portions of said support (it appears that the clamping portions are resiliently clamped, Fig. 1). The examiner is interpreting "resilient" to mean "characterized or marked by resilience: as capable of withstanding shock without permanent deformation or rupture" (Merriam-Webster online dictionary at m-w.com). It appears the metallic clamping apparatus of Bööse is capable of withstanding shock without permanent deformation or rupture: for example, it is well-known that metals can be bent without causing permanent deformation or rupture.

Bööse does not teach said slit including an opening; said clamping means comprising an elastomeric material disposed within said elongated slit and accessible

from said opening in said slit whereby said elastomeric material is resiliently disposed with respect to said doctor blade to provide a damping action for said doctor blade, and is accessible from said opening to assist in removing said doctor blade from said elongated slit.

Davis teaches a doctor blade mounting system for applying liquids comprising an elongated frame (17, Fig. 3), said elongated frame including a support and a clamping portion mounted with respect to said support, said clamping portion including an elongated slit including an opening (recess 22, Fig. 3), a doctor blade disposed within said elongated slit for operative wiping engagement (squeegee 25, Fig. 3), and clamping means for fixing said doctor blade within said elongated slit (27, Fig. 3), said clamping means being disposed with respect to said doctor blade to provide a damping action for said doctor blade (col. 3, l. 61 – col. 4, l. 4); said clamping means comprising a flexible material disposed within said elongated slit and accessible from said opening in said slit whereby said material is resiliently disposed (col. 3, l. 61 – col. 4, l. 4); and is accessible from said opening to assist in removing said doctor blade from said elongated slit (col. 3, l. 61 – col. 4, l. 4). Davis is silent as to the material of the rod 27, other than to say it is “flexible” (col. 3, l. 62).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Böös̈e wherein said clamping means is resiliently disposed with respect to said doctor blade as taught by Davis, because such a combination would predictably provide a mechanism that can hold a doctor blade, and

further because Davis teaches this arrangement simplifies assembly and removal of the doctor blade.

Knop teaches a flexible elastomeric member (4, Fig. 1) for firmly holding a doctor blade (3, Fig. 1) in a slit in a holder (13, Fig. 1). The material creates a seal that prevents penetration of liquid into the slit (col. 4, ll. 7-8).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bööse wherein the material of the doctor blade holding member was an elastomer, because Knop teaches that this provides a seal that prevents liquid from penetrating the doctor blade holding slot.

7. Claims 40-49 and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Knop.

a. Regarding claim 40:

Davis teaches a doctor blade mounting system comprising a doctor blade clamping portion (17, Fig. 3) comprising a solid material and including a slit including an opening (recess 22, Fig. 3) for receiving a doctor blade (25, Fig. 3), and clamping means (27, Fig. 3) for clamping said doctor blade within said slit, said clamping means comprising an elastomeric material disposed within said elongated slit and accessible from said opening in said slit whereby said elastomeric material is resiliently (col. 3, l. 60 – col. 4, l. 5) arranged to provide a damping motion for said doctor blade, and is accessible from said opening to assist in removing said doctor blade from said elongated slit (col. 3, l. 60 – col. 4, l. 5). Davis calls the clamping means “flexible,” but is otherwise silent as to its material of construction (col. 3, ll. 60-64).

Davis does not teach wherein said clamping means comprises an elastomeric material.

Knop teaches a flexible elastomeric member (4, Fig. 1) for firmly holding a doctor blade (3, Fig. 1) in a slit in a holder (13, Fig. 1). The material creates a seal that prevents penetration of liquid into the slit (col. 4, ll. 7-8).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bööse wherein the material of the doctor blade holding member was an elastomer, because Knop teaches that this provides a seal that prevents liquid from penetrating the doctor blade holding slot.

b. Regarding claim 41, the combination of Davis and Knop teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. The combination of Davis and Knop also teaches wherein said clamping means is tightly received within said slit (Davis: clamping means 27 appears tightly received in recess 22, Fig. 3).

c. Regarding claim 42, the combination of Davis and Knop teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. The combination of Davis and Knop also teaches wherein said clamping means fixes said doctor blade by means of friction (Davis: col. 4, ll. 1-4).

d. Regarding claim 43, the combination of Davis and Knop teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. The combination of Davis and Knop also teaches wherein said clamping means supports at least one side of said doctor blade disposed within said slit (Davis: col. 4, ll. 1-4).

e. Regarding claim 44, the combination of Davis and Knop teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. The combination of Davis and Knop also teaches wherein said clamping means is resiliently disposed within said slit (Davis: “flexible”, col. 3, l. 62).

f. Regarding claim 45, the combination of Davis and Knop teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. The combination of Davis and Knop also teaches wherein said clamping means is removably disposed within said slit (Davis: col. 4, ll. 19-25).

g. Regarding claim 46, the combination of Davis and Knop teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. The combination of Davis and Knop also teaches wherein said clamping means comprises at least one elastomeric member (Knop: col. 4, ll. 1-5).

h. Regarding claim 47, the combination of Davis and Knop teaches the doctor blade mounting system of claim 46 as discussed in the rejection of claim 46 above. The combination of Davis and Knop also teaches wherein at least a portion of said clamping means is in the shape of a wedge strip comprising a shape intended to fit and lock within a cross-sectional profile of said slit (Davis: col. 4, l. 65 – col. 5, l. 6).

i. Regarding claim 48, the combination of Davis and Knop teaches the doctor blade mounting system of claim 46 as discussed in the rejection of claim 46 above. The combination of Davis and Knop also teaches wherein at least a portion of said clamping means supports an edge of said doctor blade disposed within said slit (Davis: edge of blade 25 in recess 22, Fig. 3).

j. Regarding claim 49, the combination of Davis and Knop teaches the doctor blade mounting system of claim 46 as discussed in the rejection of claim 46 above. The combination of Davis and Knop also teaches wherein said elastomeric member has a hardness of about 70 degrees Shore A (Knop: col. 4, ll. 1-5).

k. Regarding claim 51, the combination of Davis and Knop teaches a method for removably clamping a doctor blade (10, Fig. 4) in a clamping member comprising an elongated clamping member comprising solid material (1, Fig. 2), said elongated clamping member including a slit including an opening (2, Fig. 1) for introduction of said doctor blade, said method comprising inserting a portion of said doctor blade into said slit through said opening (a portion of blade 10 is in slit 2, Fig. 4), and inserting resilient clamping means into said slit through said opening for resiliently supporting at least one side of said doctor blade within said slit (clamping means 3 and 12 are disposed in slit 2 and are supporting blade 10, Fig. 4).

l. Regarding claim 52:

The combination of Davis and Knop teaches the doctor blade mounting method of claim 51 as discussed in the rejection of claim 51 above. The combination of Davis and Knop also teaches that the clamping means generates friction against the doctor blade (Davis: col. 4, ll. 1-4).

The combination of Davis and Knop does not teach lubricating said clamping means prior to inserting said clamping means into said slit.

One having ordinary skill in the art would know that application of lubricant would help reduce friction.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Davis by lubricating said clamping means prior to inserting said clamping means into said slit, because one having ordinary skill in the art would realize this would predictably reduce the friction and thereby the effort required to insert the clamping means into the slit.

m. Regarding claim 53, the combination of Davis and Knop teaches the doctor blade mounting method of claim 51 as discussed in the rejection of claim 51 above. The combination of Davis and Knop also teaches wherein said clamping means comprising an elastomeric member (Knop: col. 4, ll. 1-5), and including manually inserting said clamping means into said slit (Davis: col. 4, ll. 19-24).

8. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Knop as applied to claim 51, and further in view of Böös̈e.

The combination of Davis and Knop teaches the doctor blade mounting method of claim 51 as discussed in the rejection of claim 51 above.

The combination of Davis and Knop does not teach attaching said clamping means to a substantially U-shaped support.

Böös̈e teaches attaching doctor blades to the end of a substantially U-shaped support (13, 14, Fig. 1) for use in printing.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Davis by attaching said clamping means to a substantially U-shaped support, because Böös̈e teaches that this creates an apparatus that is advantageous for printing.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is 571.272.2864. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571.272.2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony H Nguyen/
Primary Examiner, Art Unit 2854

Leo T. Hinze
Patent Examiner
AU 2854
18 December 2008